

REMARKS

Consideration of the above-identified application in view of the present amendment is respectfully requested. By the present amendment, claim 1 is amended, claims 6-8 and 21 are canceled and claim 22 is added. Claims 1-5, 9-20 and 22 are pending in the application.

Regarding the rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by US 6,309,259 B1 (Yamashita) and under 35 U.S.C. §103(a) as being unpatentable over US 5,032,252 (Johnson) in view of US 5,823,830 (Wurster). Applicant respectfully submits that claim 1, as amended, is patentable over these references.

As amended, claim 1 recites that the pin includes beam portions defined by inner surfaces consisting essentially of a plurality of blended cylindrical surfaces. The beam portions include respective interface portions having cylindrical inner and outer surfaces. The inner and outer surfaces of the interface portions are convex and face away from each other. The interface portions have a cross-sectional area that is greater than a cross-sectional area of the remainder of the beam portions. This is not taught or suggested in the references cited in the Office Action.

The features recited in claim 1 provide advantages not disclosed or realized in the prior art. The configuration of the beam portions, having the contoured configuration defined by the blended radiuses of the opening and the cylindrical outer surfaces, help spread out the stress uniformly over the interface portions. This configuration helps avoid having

sharp corners or intersections that may act as stress risers in the beam portions. This configuration helps prevent overstressing the beam portions, which could result in part failure, and also helps prevent plastic deformation of the beam portions, which could result in a reduced retention force.

Regarding Yamashita, the opening 14s does not consist essentially of a plurality of blended cylindrical surfaces. As clearly seen in Fig. 2, the opening includes non-cylindrical (flat) surfaces that extend tangentially from the top portion of the opening. Yamashita also does not disclose inner and outer surfaces of the interface portions 14 that are convex and face away from each other. Further, the interface portions in Yamashita do not have a cross-sectional area greater than the remainder of the beam portions. The beam portions appear to have a uniform cross-sectional area.

Regarding Johnson and Wurster, the inner and outer surfaces of their respective interface portions are not convex and facing away from each other. In Johnson, the outer surfaces are flat, and in Wurster, the inner surfaces are concave.

For these reasons, it is respectfully submitted that the rejections of claim 1 should be withdrawn and claim 1 should be allowed. Claims 2-5, 9, and 10 depend from claim 1 and are therefore allowable as depending from an allowable claim and for the specific features recited therein.

Regarding claims 2 and 11, Applicant respectfully submits that the claim recites more than a mere variation in dimension

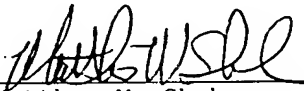
and does, in fact, recite a device that performs differently from the prior art. Claims 2 and 11 recite that the frictional engagement provides a retention force of at least 4 pounds and that the portion has a thickness of no greater than 0.4 millimeters. As described in the specification, the novel structure of the pin, having the blended cylindrical surfaces and the large cross-sectional area interface portions, allows a high retention force to be achieved with a thin pin. None of the prior art in the Office Action discloses a pin that is up to 0.4 millimeters thick while providing a retention force of at least 4 pounds.

For these reasons, it is respectfully submitted that claim 2 is allowable for these further reasons. It is also submitted that the rejection of claim 11 should be withdrawn and claim 11 should be allowed. Claims 12-20 and new claim 22 depend from claim 11 and are therefore allowable as depending from an allowable claim and for the specific features recited therein.

In view of the foregoing, it is respectfully submitted that the above identified application is in condition for allowance, and allowance of the above-identified application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,


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